

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION OF

YAMADA et al.

Appln. No.: 09/993,967

Filed: November 27, 2001

Confirmation No.: 8085

Group Art Unit: 2822

Examiner: Lewis, Monica



Title: SEMICONDUCTOR DEVICE WITH VERTICAL TRANSISTOR FORMED IN A SILICON-ON-INSULATOR SUBSTRATE

April 28, 2003

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AMENDMENT

Hon. Commissioner of Patents
Washington, D.C. 20231

Sir:

In response to the Office Action dated January 2, 2003, please enter the following amendments and remarks:

IN THE CLAIMS:

Please amend claims 1 and 21 as follows:

1. (Twice Amended) A semiconductor device comprising:
- an element substrate including a semiconductor layer of a first conductivity type being formed over a semiconductor substrate with a dielectric film interposed therebetween;
- said element substrate having a groove formed therein with a depth extending from a top surface of said semiconductor layer into said dielectric film, said groove being formed to have an increased width portion in said dielectric film, said dielectric film of said increased width portion being receded laterally as to expose a bottom surface of said semiconductor layer and such that the width of said groove in said dielectric film is greater than that of said groove in said semiconductor layer;
- an impurity diffusion source buried in said increased width portion of said groove to be contacted with said bottom surface of said semiconductor layer; and
- a transistor having a first diffusion layer of a second conductivity type being formed through impurity diffusion from said impurity diffusion source to said bottom surface of said semiconductor layer, a second diffusion layer of the second conductivity type formed through

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